NON-PUBLIC?: N
ACCESSION #: 9502140364
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Maine Yankee Atomic Power Company PAGE: 1 OF 2

DOCKET NUMBER: 05000309

TITLE: Plant Tripped Due to Generator Ground
EVENT DATE: 01/14/95 LER #: 95-001-00 REPORT DATE: 02/13/95

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 07 POWER LEVEL: 99%

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Paul R. Willoughby, Senior Shift TELEPHONE: (207) 882-6321
Technical Adviser

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On January 14, 1995, Maine Yankee was in the process was in the process of returning to full power following a shutdown to repair a leak in the feedwater system. At 0802, with the plant operating at 99 percent power, the Control Room received an alarm indicating a ground in the main electrical generator. The crew had approximately 50 minutes to determine the cause of the ground before a time delay relay would automatically trip the plant.

Following further investigation by Operations personnel and Maintenance workers, other indications of a main generator ground were found and the unit was manually tripped at 0839.

Plant systems responded normally during the plant trip.

An investigation of the ground by plant personnel with guidance from the

generator manufacturer's representatives revealed the ground occurred in the A phase of the generator stator. An evaluation to determine the exact nature of the failure is continuing.

The anticipated corrective action is to repair or replace a damaged coil in the generator stator.

END OF ABSTRACT

At 0800 on January 14, 1995, Maine Yankee was operating at 99 percent power while in the process of returning to full power following a shutdown to repair a leak in the feedwater system.

At 0802 the Control Room received an alarm indicating a ground on the main electrical generator. Maintenance personnel were directed to investigate to determine the source of the ground. Alarm response procedures indicated that a time delay relay, activated by the alarm, allowed the operators approximately 50 minutes to determine the source of the ground and to correct the malfunction. The time delay relay automatically trips the turbine after 50 minutes, which in turn trips the reactor.

Coincident with the actuation of the alarm, a high temperature alarm was received on the outboard exciter bearing. There was no indication of increasing vibration on the bearing.

Other indications discovered by Maintenance and Operations personnel included a flag in the generator exciter control cabinet and off-normal readings on the generator condition monitor and generator radio frequency monitor.

At approximately 0835 Maintenance personnel reported finding one of the turbine-generator shaft ground brushes arcing. Further inspection revealed significant burn indications on the brush.

At 0838 the Plant Shift Superintendent and Maintenance personnel found the generator neutral bus overvoltage relays 59N and 59XN tripped.

The Plant Shift Superintendent directed a manual trip and the Reactor Protective System was manually actuated to trip the reactor and turbine-generator at 0839.

Plant systems responded normally during the trip.

No personnel or procedural errors were identified as causal factors in the event.

The generator is a 950 MVA, 22 KV, 1800 RPM Westinghouse model, S.O.N. 92P0565.

There have been no previous plant trips due to generator grounds at Maine Yankee.

An investigation of the incident by plant personnel with guidance from the generator manufacturer's representatives revealed the ground occurred in the A phase of the generator stator. An evaluation to determine the exact nature of the failure is continuing. The flag in the exciter control cabinet is believed to be vibration induced no relay actuated. Subsequent testing of the exciter also verified that there was no exciter ground. The bearing high temperature alarm is believed to have been caused by induced voltage from the generator ground. Inspection of the bearing revealed no indications of excessive temperature. The anticipated corrective action is to repair or replace a damaged coil in the generator stator.

Maine Yankee
RELIABLE ELECTRICITY SINCE 1972

329 BATH ROAD o BRUNSWICK, MAINE 04011 o (207) 798-4100

February 6, 1995
MN-95-10 JRH-95-32

UNITED STATES NUCLEAR REGULATORY COMMISSION
Attention: Document Control Desk
Washington, DC 20555

Reference: (a) License No. DPR-36 (Docket No. 50-309)

Subject: Maine Yankee Licensee Event Report 95-001, Plant Tripped Due to Generator Ground

Gentlemen:

Please find enclosed Maine Yankee Licensee Event Report 95-001.
This report is submitted in accordance with 10CFR50.73(a)(2)(iv).

Please contact us should you have any questions regarding this

matter.

Very truly yours,

James R. Hebert, Manager
Licensing & Engineering Support Department

JVW/mwf

Enclosure

c: Mr. Thomas T. Martin
Mr. J. T. Yerokun
Mr. E. H. Trottier
Mr. Patrick J. Dostie

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